

What is claimed is:

1. An automobile wiper driving apparatus comprising:

5 a DC motor driven by a DC power supply for sweeping a wiper from a prescribed park position to a maximum wiping position; and

wiper driving means for switching on and off by a pulse width modulation signal of which duty corresponds to an externally fixed operation speed a switching element
10 provided on a current rout between said DC power supply and DC motor which is driven at a rotation speed which corresponds to said externally fixed operation speed,

wherein said wiper and wiper driving means are assembled in a module.

15 2. The automobile wiper driving apparatus according to claim 1, wherein said switching element is a power MOSFET which is provided on a current route between said DC motor and a cathode of said DC power supply.

20 3. The automobile wiper driving apparatus according to claim 1, which further comprises a rotation speed detection means for detecting a rotation speed of said DC motor,

wherein said wiper driving means compensates said duty whereby said rotation speed corresponds to said
25 externally fixed operation speed.

4. The automobile wiper driving apparatus according to claim 1, which further comprises a current detection means for detecting a motor current through said motor,

wherein said wiper driving means compensates said duty whereby said motor current corresponds to said externally fixed operation speed.

5 5. The automobile wiper driving apparatus according to claim 1, wherein said wiper driving means set up said pulse width modulation signal in such a manner that a duty during said wiper's moving from said maximum wiping position to said park position is greater than a duty during said wiper's moving from said park position to said
10 maximum wiping position.

6. The automobile wiper driving apparatus according to claim 1, wherein said wiper driving means further comprises:

15 a timer for counting a wiper descent time period T1;
and
another timer for counting a wiper ascent time period T2,

20 wherein said wiper driving means set up said duty of said pulse width modulation signal in such a manner that a difference between T1 and T2 is within a prescribed period.

7. The automobile wiper driving apparatus according to claim 1, wherein said wiper driving means comprises a relay connected in parallel with said switching element,

25 wherein said DC motor is rotated, regardless of said switching element, by switching on said relay at a prescribed speed prescribed by said externally fixed operation speed.